National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property				word processor, or computer, to c	- Complete air items.
historic name Eureka Locomot	ive				
other names/site number					
2. Location					
street & number	•			☑ not	for publication
city or town		<u> </u>			vicinity
state				code _003 _ zip	•
3. State/Federal Agency Certifica	tion				· · · · · · · · · · · · · · · · · · ·
Historic Places and meets the proced meets does not meet the Nationally statewide locally signature of certifying official/Title State of Federal agency and bureau In my opinion, the property meets comments.)	SHPO	continuation sh	eet for additional com 2/6/44 Date	operty be considered significant nments.)	_
Signature of commenting official/Title			Date	· 	
State or Federal agency and bureau	··-	<u> </u>			-
. National Park Service Certificat	tion				
hereby certify that the property is: left entered in the National Register. See continuation sheet. determined eligible for the National Register			Signature of the Keep	er	Date of Action
☐ See continuation sheet. ☐ determined not eligible for the National Register.					
removed from the National Register.					
other, (explain:)					
			<u> </u>		·

Eureka Locomotive Name of Property		Clark County NV County and State		
5. Classification		County an	NI State	
Ownership of Property (Check as many boxes as apply) Category of Property (Check only one box)		Number of Resources within Property (Do not include previously listed resources in the count.)		
private public-locat	☐ building(s) ☐ district	Contributing 0	Noncontributing 0	·
□ public-State □ public-Federal	☐ site ☑ structure	0	0	buildings
	☐ object	1	0	sites structure
		0	0	structure objects
		1	0	Total
Name of related multiple pt (Enter "N/A" if property is not part	roperty listing of a multiple property listing.)	Number of co	ontributing resources pr al Register	·
N/A		0		
6. Function or Use	3			
Historic Functions (Enter categories from instructions)		Current Functio (Enter categories fro		
TRANSPORTATION/rail-related		TRANSPORTAT]	ON/rail-related	
				 ,
				······································
7. Description				
Architectural Classification (Enter categories from instructions)		Materials (Enter categories from	n instructions)	
OTHER: 4-4-0 locomotive		foundationN	/A	
		wallsN	/A	
	· · · · · · · · · · · · · · · · · · ·			-
•		roofN	/A	· · · · · · · · · · · · · · · · · · ·
			ETAL: steel, brass	3

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

Eureka Locomotive	Clark County NV
Name of Property	County and State
10. Geographical Data	
Acreage of Property less than one acre	
UTM References (Place additional UTM references on a continuation sheet.)	
1 1 1 6 6 1 0 5 10 4 10 1 10 5 10 10 Zone Easting Northing	3 Zone Easting Northing 4 See continuation sheet
Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)	
Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)	
11. Form Prepared By	
name/title Harold Housley, Intern; Julie Nicoletta,	Architectural Historian
organization State Historic Preservation Office	date August 1994
street & number 100 Stewart St.	telephone (702) 687-7601
	state NV zip code 89710
Additional Documentation	
Submit the following items with the completed form:	
Continuation Sheets	
Maps	
A USGS map (7.5 or 15 minute series) indicating the prope	erty's location.
A Sketch map for historic districts and properties having la	rge acreage or numerous resources.
Photographs	
Representative black and white photographs of the proper	ty.
Additional items (Check with the SHPO or FPO for any additional items)	
Property Owner	
(Complete this item at the request of SHPO or FPO.)	
name	
street & number	telephone
city or townst	ate zip code

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

National Register of Historic Places Continuation Sheet

Section number7	Page1	
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Eureka Locomotive Clark County, NV

Description

The Eureka is a 3-foot gauge 4-4-0 "American" type steam locomotive built in 1875 by the Baldwin Locomotive Works of Philadelphia for the Eureka & Palisade Railroad. The designation "4-4-0," also named the "American" or "American Standard" type, refers to the wheel arrangement of the locomotive. There is a four-wheel lead truck under the front part of the locomotive to help guide it around curves. Behind the lead truck are the four drive wheels, which power the locomotive. On some types of locomotives there is a trailing truck behind the drivers, but the American type does not use this.

When introduced in the late 1830s the 4-4-0 was more powerful than the then-common 4-2-0. The lead truck guided the locomotive down the rough track, prevalent in that period, better than the 0-4-0 and 0-6-0 also in use at the time. By the early 1870s, when the 4-4-0 was given the "American Standard" name, it was by far the most common type of locomotive in use on American railroads. The origin of its other name, "eight-wheeler," is based on its total of eight wheels.

The wood-burning engine weighs 22 tons and has 42-inch drivers and 12-inch by 16-inch cylinders. The firebox is made of steel and has a length of 59 inches inside, a width of 22 inches, and a depth of 51 inches. The boiler is designed to operate at 120 pounds of pressure. The smokestack is cold-rolled steel riveted together.

The locomotive is highly decorated, typical of the 1870s. It is painted a striking "lake" color (sort of a deep red-maroon) with polished brass hand rails, flag holders, cylinder wrappers, and steam dome wrapper. The present blued steel boiler jacket simulates the original Russia iron jacket, and is held on with polished brass bands. The running boards along the boiler and the tender have round polished brass nosings. The locomotive running boards and the tender truck transoms are of red oak, now finished with natural varnish rather than paint as it was originally. There is gold leaf lettering with painted drop shadowing and trim on the tender and sand box, sunbursts on the drivers, and other decorations. The engine's cab is crafted of varnished natural finish American black walnut, with gold leaf trim and the name Eureka lettered in gold leaf with drop shadowing on each side in name panels below the windows.

National Register of Historic Places Continuation Sheet

Section number 7,8 Page 2

Eureka Locomotive Clark County, NV

Description (continued)

The Eureka retains its original 1875 boiler and tender. Original boiler tubes and tube sheets were replaced regularly by the railroads in the normal course of service, and were replaced once again in the restoration. In the process of converting the engine back to the original wood fuel from the later oil fuel, a new firebox door, grates, ash tray with dampers, and a Radley-Hunter smokestack with spark arrester were fabricated according to original specifications. Other replacement parts include the pilot and kerosene lamp. New wood lagging (insulation) was placed on the boiler and covered by the blued steel jacket. The walnut cab and wooden running boards were rebuilt as well. Despite these changes, the Eureka possesses a high degree of historic integrity. It is the oldest and most original surviving example of the Baldwin locomotive class 8/18C, built to drawing No. 4 in that class.

Statement of Significance

The Eureka locomotive, manufactured in 1875, is significant under Criterion A, Consideration B, as the oldest existing locomotive of the Eureka & Palisade Railroad, a central Nevada line built to transport passengers as well as silver and lead from the mines at Eureka to the Central Pacific line at Palisade. Furthermore, the Eureka is significant under Criterion C as one of the few remaining 4-4-0 locomotives. It is the only operational locomotive of the three remaining Baldwin Class 8/18C, drawing No. 4, engines in the United States; the other two locomotives are stored in museums while the Eureka is run occasionally on various short lines. The Eureka is the oldest of the three and also retains the highest degree of integrity, having its original boiler and tender.

Historical background and significance: Criterion A

The 4-4-0 locomotive, known as the "eight-wheeler," was so prevalent on United States railroads in the mid and late nineteenth century that it was known as the "American." Its use was widespread on standard-gauge lines, where the rails are spaced four feet eight and one-half inches apart, and narrow-gauge lines, most commonly with rails spaced three feet apart.

National Register of Historic Places Continuation Sheet

Section number .	8	Page3		
Eureka I	ocomotiv	ve		
Clark Co	ounty, N	V		

Statement of Significance (continued)

Railroads such as the Central Pacific, the Southern Pacific, and the Virginia and Truckee used the 4-4-0 on their tracks. The 4-4-0 was ideally suited for the rough track and sharp curves common on North American railroads in the nineteenth century, especially in the American West. The two locomotives that met on May 10, 1869, at Promontory, Utah, to complete the transcontinental railroad were 4-4-0 engines—the Central Pacific *Jupiter* and the Union Pacific No. 119.

The most common nineteenth-century locomotives consisted only of a small boiler and two cylinders driving four wheels. These 0-4-0 engines had limited pulling power, and lacked a lead truck and flexible suspension system. As a result, stalls and derailments were common occurrences. The 4-2-0 type, developed in the mid-1830s, offered improved operation due to the four-wheeled truck supporting the front end through a pivot point, the two larger driving wheels in the rear. This combination provided three-point suspension, keeping the drivers in constant contact on the rough track. With half of the engine's weight resting on the unpowered lead truck, however, the traction of the driving wheels was reduced, increasing the chance of slipping on moderate or high grades.

The 4-4-0 represented a significant technological improvement when it was developed in the late 1830s. Like the 4-2-0, it utilized a three-point suspension system, with an equalizing lever pivoting off the frame and spanning between the bearings of the two drivers on each side. With four drivers carrying two-thirds of the engine's weight, the 4-4-0 overcame the various disadvantages of the other configurations and proved to be an extremely stable and flexible engine. It could stay on the worst track. With most of its weight on the drivers, it had excellent climbing ability.¹

Baldwin and other locomotive builders manufactured over 24,000 4-4-0 types from 1840 to 1900. Throughout most of the nineteenth century, the 4-4-0 was the most popular engine for

¹ Doug Diemer, <u>The 1875 Baldwin 4-4-0</u>, (Carson City: Nevada State Railroad Museum, 1994), n.p.

National Register of Historic Places Continuation Sheet

Section number		Page	4
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Eureka Locomotive Clark County, NV

Statement of Significance (continued)

transporting both passenger and freight trains across the United States. As the larger railroads began improving their track and operating longer, heavier trains on faster schedules, the stability of the 4-4-0 became less important than the superior pulling power of the 2-6-0, 4-6-0, and 2-8-0 types. By 1900 many railroads were replacing their 4-4-0 engines with these more powerful locomotives.²

The importance of railroads for passenger transportation diminished dramatically following the development of federally-funded highways beginning in 1916, when car and bus transportation became more prevalent. Freight transportation on railroads also declined, though less so than passenger transportation, as trucks became the preferred method for moving freight in the 1910s and 1920s.³ The heyday of railroad construction and transportation corresponded with the dominance of the 4-4-0 locomotive. This engine played an important role in the transportation of people and freight throughout most of the nineteenth century.

The development of railroads in Nevada coincided with eras of mining prosperity in the state. The majority of railroad construction in Nevada occurred during two periods--from 1868 to 1883 and from 1903 to 1912.⁴ The first major strike of silver-lead in the United States occurred in 1864 in the central Nevada mining district of Eureka. Initially the discovery generated little excitement because of the large quantities of lead present along with the silver. But the establishment of a smelting operation in 1869 ushered in a fifteen-year period of prosperity. Throughout the 1870s the mines at Eureka produced \$2-5 million

² Ibid., n.p.

³ Richard D. Adkins, <u>Steel Rails</u>, <u>Desert Vistas</u>: <u>Nevada Railroad Resources</u>, (Carson City: Division of Historic Preservation and Archeology, 1992), 7.

⁴ David F. Myrick, <u>Railroads of Nevada and Eastern California: Volume One--The Northern Roads</u>, (Berkeley, Cal.: Howell-North Books, 1962), vi.

National Register of Historic Places Continuation Sheet

Section number	8	Page	5
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Eureka Locomotive Clark County, NV

Statement of Significance (continued)

in gold and silver, making Eureka the most productive mineral district outside the Comstock.⁵

The productivity of the mines in the Eureka district created a need for transportation. Upon the completion of its final transcontinental segment in 1869, the Central Pacific Railroad became a link in the major east-west artery for the nation. However, the line bypassed Eureka in favor of a route through flatter terrain to the north. In order to connect outlying mining towns like Eureka to the Central Pacific, smaller companies built short feeder lines.⁶ One of these lines was the Eureka & Palisade Railroad, an 84-mile narrow-gauge line.

A group of stage operators and hotel owners formed the Eureka & Palisade Railroad in 1873, but shortly after construction was started in 1874, control passed to a group associated with the Bank of California, well known for their control of the Virginia and Truckee Railroad. Construction on the line started south from Palisade on the Central Pacific, and in October 1875 the first locomotive arrived in Eureka. The line prospered as long as the mining boom lasted. In 1880 the railroad transported nearly 37,000 tons of freight, and reported a total profit of over \$248,000. When the bonanza ore bodies were exhausted in 1885, the fortunes of the Eureka & Palisade declined. Two major smelting operations closed down in 1890 and 1891. The Eureka & Palisade went bankrupt in 1900.⁷ A new group of owners reorganized the company, changing the name to the Eureka & Palisade Railway, which served the mines that were booming again by 1905. A flood in 1910 caused \$150,000 worth of damage, an amount the owners of the small line were unwilling to invest. The line again changed

⁵ Russell R. Elliot, <u>History of Nevada</u>, 2nd ed., rev. (Lincoln: University of Nebraska Press, 1987), 105-7.

⁶ James W. Hulse, <u>The Silver State: Nevada's Heritage Reinterpreted</u>, (Reno: University of Nevada Press, 1991), 126.

⁷ Myrick, Railroads of Nevada and Eastern California, Volume One, 99-100.

National Register of Historic Places Continuation Sheet

Section number	8	Page6		
Eureka	acomotiv	70	 •	

Eureka Locomotive Clark County, NV

Statement of Significance (continued)

owners and names, becoming known as the Eureka-Nevada Railway Company in 1912. The line was somewhat profitable between 1915 and 1927, but improvements in highway transportation signaled the end of the Eureka-Nevada Railway Company, which ceased operation in 1938.

Eureka & Palisade locomotive No. 4, named Eureka, was purchased during the initial mining boom in the Eureka district. Constructed by the well-known Baldwin Locomotive Works of Philadelphia in 1875, the engine served on the Eureka & Palisade until 1896. In that year the Eureka was sold to the Sierra Nevada Wood and Lumber Company, which originally operated around the north shore of Lake Tahoe. By the time the Sierra Nevada Wood and Lumber Company acquired the Eureka, the forests around Lake Tahoe had been nearly logged out, so the company had moved its operations to the Truckee River area of Hobart, near Truckee, California. The Sierra Nevada Wood and Lumber Company brought two small narrow-gauge locomotives from its Lake Tahoe operation, and built a narrow-gauge line from the saw mill at Hobart into the woods. A standard-gauge line was constructed from the mill to a connection with the Central Pacific at Truckee.8 The Eureka became Sierra Nevada Wood and Lumber Company locomotive No. 5. In later years it was converted from wood to oil fuel. In 1917 the company was transferred to the Hobart Estate Company and continued operations until 1938, by which time the forests in the Truckee River region had been heavily depleted. The company went out of business, and Hyman-Michaels, a San Francisco scrap dealer, purchased the Eureka locomotive.

The Eureka was about to be cut up for scrap when Warner Brothers acquired it in 1939 and used it in motion pictures. It first appeared in the 1940 movie Torrid Zone as well as subsequent features including Cheyenne Autumn, Finian's Rainbow, and The Great Train Robbery. Its final appearance came in 1976 in The Shootist, where it appeared as a Virginia and Truckee locomotive.

⁸ Ibid., 439.

National Register of Historic Places Continuation Sheet

Section number8	Page	
Eureka Locomotiv	ve	
Clark County, N	V	

Statement of Significance (continued)

In the late 1970s Warner Brothers sold the *Eureka* to a Henderson, Nevada, amusement park called Old Vegas. In 1978 the California State Railroad Museum used the *Eureka* as a source of original Baldwin paint information while restoring a similar narrow-gauge 4-4-0. Original paint still on the locomotive was uncovered and color matched, and the decorative patterns were traced. A burning building collapsed onto the *Eureka*, In 1985, badly damaging it. The following year, Las Vegas attorney Daniel Markoff purchased the *Eureka*. Using original Baldwin drawings and records, and the paint information from the California State Railroad Museum, Markoff and his friends restored the *Eureka* to its appearance as a Eureka & Palisade locomotive. They converted it back to a wood burner, rebuilt the cab and the pilot, and refurbished the boiler to operating condition. They also restored the gold leaf lettering and decorative work.

The newly restored engine made its debut at the California State Railroad Museum's Railfair in Sacramento in May 1991. Since then the *Eureka* has made appearances in Eureka and at the Clark County, (Nevada) Museum's Railroad and Transportation Days in October 1992. In May 1993 Markoff and others conducted a two-day, 130-mile trip on U.S. Gypsum's narrow-gauge line at Plaster City, California. The *Eureka* is currently housed in a specially built enginehouse on Markoff's property in Las Vegas.

The Eureka is significant as the oldest surviving locomotive from the Eureka & Palisade Railroad. Railroads in Nevada played an important part in settlement, mining, and community development, and in the creation of markets outside the state. The Central Pacific, the Virginia and Truckee, the Nevada-California-Oregon, the Carson and Colorado, the Nevada Central, and the Eureka & Palisade were the most important railroad lines in nineteenth-century Nevada.

⁹ Phillip I. Earl, "Railroads of Nevada," in <u>Nevada Comprehensive Preservation Plan</u>, Richard A. Bernstein and Ronald M. James, eds., 2nd ed., (Carson City: Division of Historic Preservation and Archeology, 1991), 3.

National Register of Historic Places Continuation Sheet

Section number $\frac{8,9}{}$ Page $\frac{8}{}$

Eureka Locomotive Clark County, NV

Statement of Significance (continued)

Rare example of a 4-4-0 steam locomotive: Criterion C

The Eureka is also significant as one of the few remaining 4-4-0 narrow-gauge locomotives in existence. By 1900 most narrow-gauge railroad companies had stopped purchasing 4-4-0 engines in favor of larger and stronger locomotives, a pattern also present with standardgauge companies. The Eureka is the oldest of the three remaining Baldwin 8/18C class locomotives in the United States, and is also believed to be older than the two similar Baldwin locomotives that also survive in Brazil. Of the five, the Eureka is the only one that is operational. The other Baldwin narrow-gauge 4-4-0 engines are all on static display. The California State Railroad Museum in Sacramento has the 1876 North Pacific Coast Railroad Sonoma, while the Smithsonian has the 1876 Santa Cruz Railroad Jupiter, housed in the Institution's Arts and Industries Building in Washington, D.C. The two Brazilian locomotives are similarly preserved, although not with the same degree of restoration as the United States engines. One was built in 1878, while the date of the other is unknown at present. Of the three United States engines, the Eureka is the only one that retains its original boiler and tender. Both the Sonoma and the Jupiter have had theirs replaced over the years. As a rare example of the 4-4-0 American locomotive, which is strongly identified with the settlement of the West and the heyday of railroad transportation, the Eureka should be listed on the National Register.

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National Register of Historic Places Continuation Sheet

Section number	9	Page	9
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Eureka Locomotive Clark County, NV

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